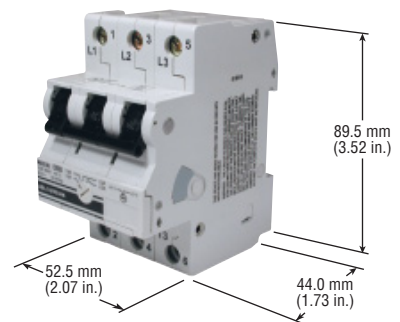


MA Three Phase Adjustable Circuit Breakers — 35 mm DIN Rail Mount

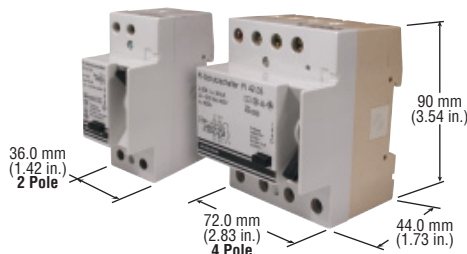
The Altech/ABL SURSUM MA holds through starting and inrush currents of three phase transformers, lighting, power supplies and motors (including the new high efficiency motors) yet provides tight overload protection, fast half-cycle short-circuit protection, and current/energy let-through protection.

The MA is UL 508 Listed and UL[®] certified to CAN/CSA-C22.2 No. 14 (C-UL) as a manual motor controller with group ratings, and functions as a three-phase disconnect, overload protector and controller in one compact DIN rail mounted package. It is a thermal/magnetic circuit breaker in the IEC style with thermal overload trip curves calibrated for USA norms. With the adjustment dial set at the full-load-amps (FLA) of the load, the MA/U cold-start trips in about one hour at an overload of 115% FLA and in less than 10 seconds at 600% FLA, and hot-start trips in less than two minutes at 150% FLA (i.e., Class 10 A overload device). The MA/U is therefore suitable overload protection for all motor applications covered under NFPA70 — National Electrical Code 430-32 (a)(1), including those with service factors less than 1.15 or temperature rise more than 40°C. With screw-cage clamp terminals that accept 18 AWG to 3 AWG wire factory or field, the MA is particularly well suited for group applications and single motor taps under NEC[®] 430-53 (c) and (d).



Stock No.	Mfr.'s Type	Cat. No.	Rated Current (Amps)	FLA Dial Range (Amps)	EACH
					1-5
501-6000	MA0.25U	15.902U	0.25	0.16-0.25	81.50
501-6001	MA0.63U	15.904U	0.63	0.40-0.63	81.50
501-4508	MA1.0U	15.905U	1.00	0.63-1.00	81.50
501-4509	MA1.6U	15.906U	1.60	1.00-1.60	81.50
501-4510	MA2.5U	15.907U	2.50	1.60-2.50	81.50
501-4511	MA4.0U	15.908U	4.00	2.50-4.00	81.50
501-4512	MA6.3U	15.909U	6.30	4.00-6.30	81.50
501-4513	MA10U	15.910U	10.00	6.30-10.00	81.50
501-4514	MA16U	15.911U	16.00	10.00-16.00	89.20
501-4515	MA20U	15.912U	20.00	16.00-20.00	92.20
501-4516	MA25U	15.913U	25.00	20.00-25.00	98.30
501-4517	MA32U	15.914U	32.00	25.00-32.00	107.70
501-4518	MA40U	15.915U	40.00	32.00-40.00	119.80

FI Earth Leakage Circuit Breakers — 35 mm DIN Rail-Mount



Compact DIN rail-mount Earth Leakage Circuit Breakers detect and interrupt ground faults. They are VDE approved for the European system of protecting people, animals, equipment and property from dangerous line-to-ground and shock hazard currents.

US applications include ground fault protection of equipment (GFPE) using the 10 mA and 30 mA fault current ratings, especially when high distributed capacitance, or other leakage cause excessive nuisance trips at lower fault currents. Applications for the 300 mA rating are equipment protection and fire prevention by limiting the energy of a fault to less than the minimum ignition energy for many materials.

Two-Pole Single Phase 240 VAC Max.

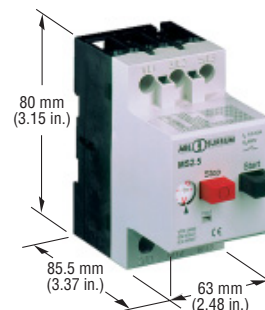
Stock No.	Mfr.'s Type	Cat. No.	Rated Line Current (Amps)	Fault Trip Current (mA)	EACH
					1-24
501-4519	FI21.01	15.921	16	10	190.00
501-4520	FI22.03	15.922	25	30	140.00
501-4521	FI22.30	15.924	25	300	170.00
501-4522	FI23.03	15.923	40	30	160.00
501-4523	FI23.30	15.925	40	300	170.00
501-6002	FI22.03Y	15.932*	25	30	190.00
501-6003	FI23.03Y	15.934*	40	300	220.00

Four-Pole Two/Three Phase 415 VAC Max.

501-4524	FI42.03	15.926	25	30	155.00
501-4526	FI43.03	15.927	40	30	160.00
501-4528	FI44.03	15.928	63	30	320.00
501-4529	FI44.30	15.931	63	300	230.00
501-6005	FI42.03Y	15.933*	25	30	210.00
501-6007	FI44.03Y	15.936*	63	30	370.00

*With auxiliary contacts.

MS Three Phase Adjustable Trip Economy Manual Motor Controller



Due to its high breaking capacity with high current limitation, the MS Manual Motor Controllers provide an optimum of protection for electrical motors as well as for other consumer units up to 25 A. They are equipped with phase failure sensitivity, isolating and main switch functions; 13 ranges covering nominal rated currents from 0.1 up to 25 A. The MS's are temperature compensated; the trip current of the magnetic part is 12 x I_n. The Manual Motor Controllers are built in accordance with IEC 947.

Stock No.	Mfr.'s Type	Rated Current Adjustment/FLA (A)	Overload Release (Amps)	EACH
501-0031	MS016	0.16	0.10-0.16	51.94
501-0032	MS025	0.25	0.16-0.25	51.94
501-0033	MS04	0.40	0.25-0.40	51.94
501-0034	MS063	0.63	0.40-0.63	55.36
501-0035	MS1	1.00	0.63-1.00	62.19
501-0036	MS1.6	1.60	1.00-1.60	62.19
501-0037	MS2.5	2.50	1.60-2.50	62.19
501-0038	MS4	4.00	2.50-4.00	62.19
501-0039	MS6.3	6.30	4.00-6.30	62.19
501-0040	MS10	10.00	6.30-10.00	72.43
501-0041	MS16	16.00	10.00-16.00	72.43
501-0042	MS20	20.00	16.00-20.00	78.28
501-0043	MS25	25.00	20.00-25.00	93.16

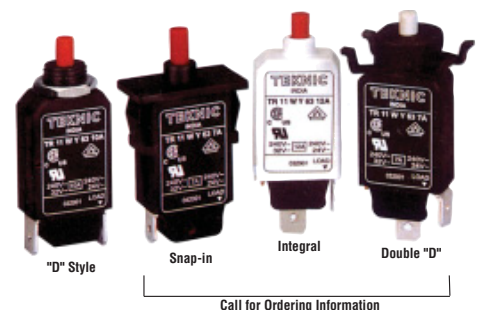
Supplementary Protector / Circuit Breaker for Equipment — TR 11

- ▶ Cost-Effective Reliable Thermal Circuit Protection
- ▶ Threadneck ("D" Style) Panel Mounting (Mounting Hole: 0.405" Dia. x 0.373")
- ▶ Other Mounting Provisions Available: "Double D", Snap-In, Integral, Extension Body
- ▶ UL, CSA, VDE (Up to 12A) and EN 60934 Approved
- ▶ 0.250" Quick-Connect Terminals
- ▶ Dust Cover Available (IP54)

Stock No.	Mfr.'s Type	Rated Current (Amps)	EACH
501-0069	TR-11CX630.5A	0.5	3.28
501-0070	TR-11CX630.9A	0.9	3.28
501-0071	TR-11CX631A	1.0	3.28
501-0072	TR-11CX631.2A	1.2	3.28
501-0073	TR-11CX631.5A	1.5	3.28
501-0074	TR-11CX631.8A	1.8	3.28
501-0075	TR-11CX632A	2.0	3.28
501-0076	TR-11CX632.2A	2.2	3.28
501-0077	TR-11CX632.5A	2.5	3.28
501-0078	TR-11CX632.7A	2.7	3.28
501-0079	TR-11CX633A	3.0	3.28
501-0080	TR-11CX633.3A	3.3	3.28

Stock No.	Mfr.'s Type	Rated Current (Amps)	EACH
501-0081	TR-11CX634A	4.0	3.28
501-0082	TR-11CX635A	5.0	3.28
501-0083	TR-11CX636A	6.0	2.97
501-0084	TR-11CX636.5A	6.5	2.97
501-0085	TR-11CX637A	7.0	2.97
501-0086	TR-11CX638A	8.0	2.97
501-0087	TR-11CX639A	9.0	2.97
501-0088	TR-11CX6310A	10.0	2.97
501-0089	TR-11CX6312A	12.0	2.97
501-0090	TR-11CX6315A	15.0	3.28
501-0091	TR-11CX6316A	16.0	3.28

NEW



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